

**1 November 2012**

**Data Quality Objectives (DQO)s  
Dredge Area Boundary Sampling  
Former Stanley Tools Facility (MID 099 124 299)**

CTI has prepared this Data Quality Objectives (DQOs) summary for the planned dredge area boundary sampling effort as an attachment to CTI's letter dated 1 November 2012. *EPA Guidance on the Data Quality Objectives Process (QA/G-4)* was used in the preparation of this document.

**1. State the Problem**

JCI Sediment Remedial Design Plan and Addendum to Baseline Ecological Risk Assessment were submitted to EPA in January 2010, and June 2012, respectively. As requested in the USEPA's letter dated December 5, 2011, permitting for the dredging effort is in-progress and the Sediment Remedial Design Plan will be resubmitted. Dredging is planned for the summer of 2013.

Laboratory analytical data that documents sediment quality at the following three removal area boundary locations does not exist and needs to be included in the Sediment Remedial Design Plan:

- a. the southern boundary of the southern dredge area, between transect A the CSX rail line (Station 0+00);
- b. the northern boundary of the southern dredge area, between the boundary and transect I (Station 5+00); and
- c. the northern boundary of the northern dredge area, between Transect M and Grand River Avenue (Station 13+50).

The southern boundary of the northern area has been extended to transect L. Sampling at transect L indicates that remedial objectives (RO) (USEPA, 19 June 2009) are not exceeded and, per the BERA Addendum, sediment removal at transect L is not required. Therefore, boundary data is not needed for the southern boundary of the northern area.

**2. Identify the Decision**

Sediment sampling data from these three areas will be compared to ROs and analyzed using mean PEC quotients to document that the dredge area boundaries are appropriate.

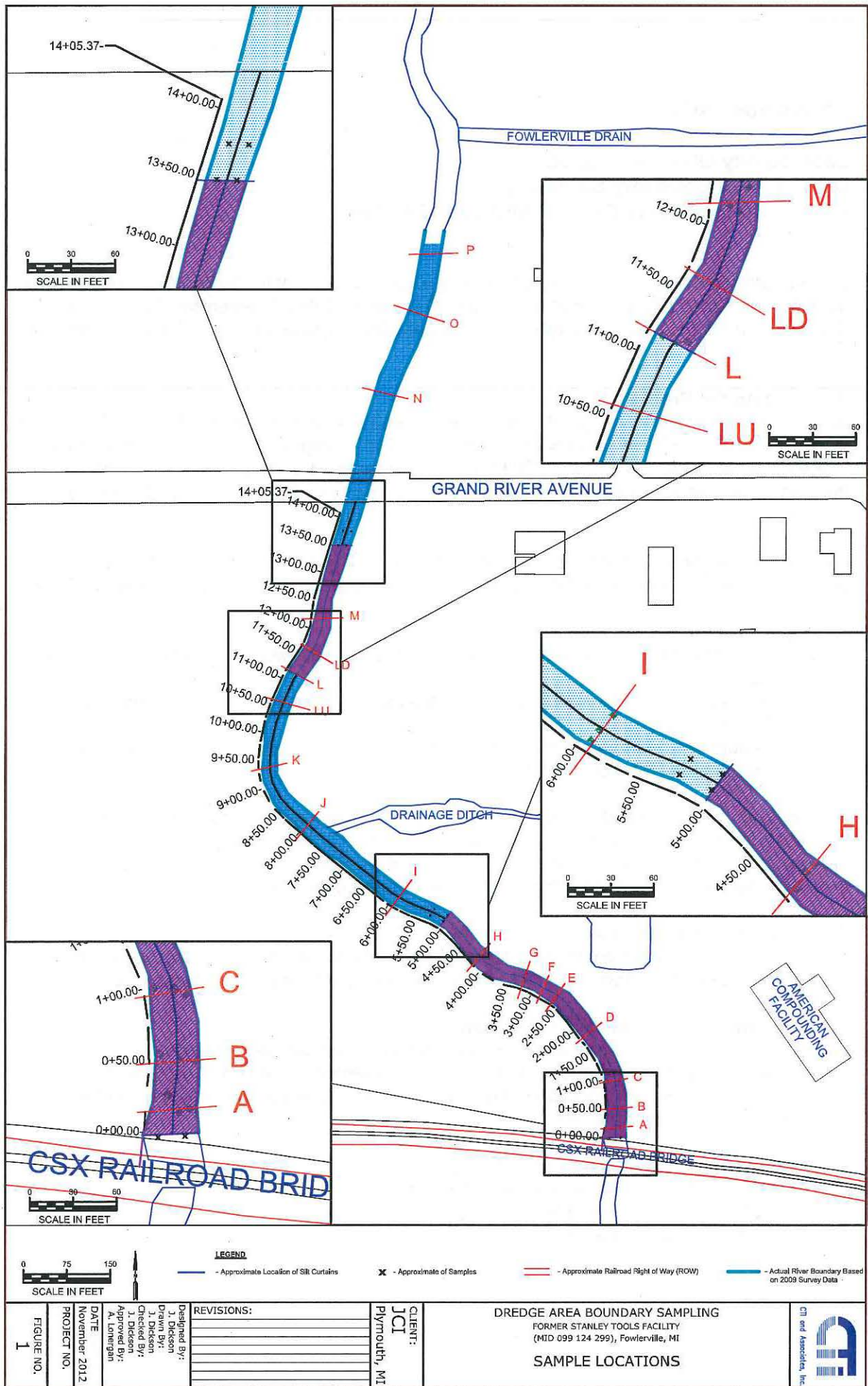
**3. Identify the Inputs to the Decision**

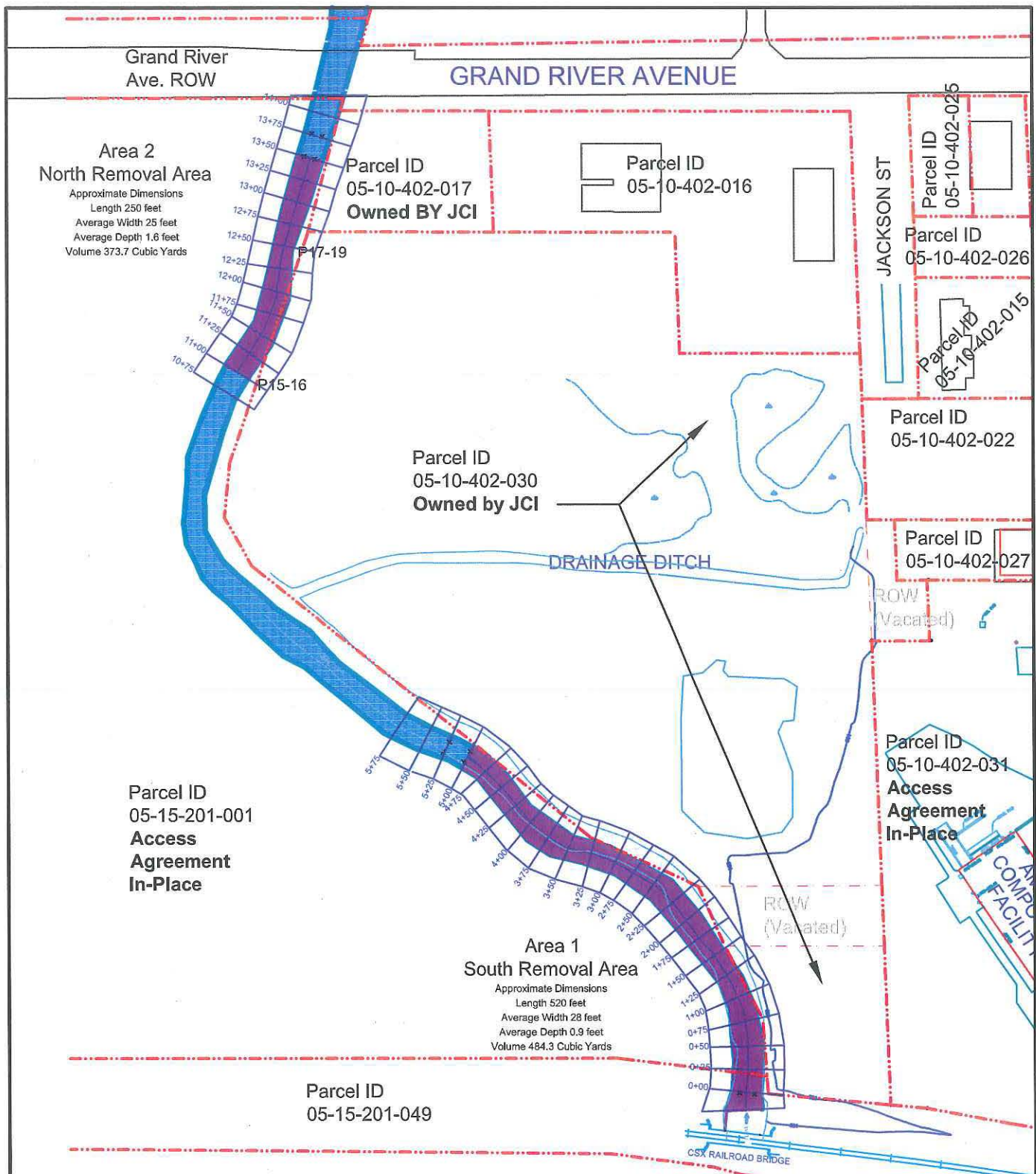
Laboratory analytical data from sediment samples collected outside of the dredge area boundaries are inputs to the decision. RO values presented in the USEPA's letter dated 19 June 2009 are inputs to the decision. Mean PEC quotient analysis, as presented in the BERA Addendum, is an input to the decision.

**4. Define the Boundaries of the Study**

The boundaries for the northern area as follows:

- North boundary – Grand River Avenue
- South boundary – transect L





0 75 150  
SCALE IN FEET

- Sediment Removal Area  
0 + 00 - Station Numbers

**LEGEND**

- Property Lines from Figure 3  
 - Floodplain Contour (884' NAVD88)  
 - Approximate Location of Silt Curtain

CLIENT:  
JCI  
Plymouth, MI

Drawn By:  
J. Dickson  
Checked By:  
R. Shebuski  
Approved By:  
A. Loneragan

DATE  
Jan 2013

PROJECT NO.

FIGURE NO.  
3

**SEDIMENT REMEDIAL DESIGN PLAN**  
FORMER STANLEY TOOLS FACILITY  
(MID 099 124 299), Fowlerville, MI - Livingston County  
Survey Stationing  
Dredging Locations (Nov 2012)

CTI and Associates, Inc.



